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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,147	11/29/2000	Masao Tamashima	001574	8277
23850	7590	04/22/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			HENN, TIMOTHY J	
			ART UNIT	PAPER NUMBER
			2612	
DATE MAILED: 04/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/725,147	TAMASHIMA, MASAO
Examiner	Art Unit	
Timothy J Henn	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 November 2000.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 November 2000 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of the following minor informalities:

- i. Delete "once" on line 2
- ii. Replace "an SDRAM" with —a SDRAM— on line 5
- iii. Replace "image signals is recorded" with —image signal is recorded—on line 11

Correction is required. See MPEP § 608.01(b).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al. (US 5,153,730) in view of the DCF (Design rule for Camera File system).

[claim 1]

5. In regard to claim 1, note that Nagasaki et al. discloses a digital camera (Figure 1) for recording, in a compression state (Column 3, Lines 11-16), a plurality of main image signals to a recording medium (Figure 1, Item 35), comprising: a main image compressor for compressing one of the main image signals each time picture taking is made once (Column 2, Line 65 - Column 3, Line 16; The office notes that each time a picture is taken it is compressed by the data processing unit). Therefore, it can be seen that Nagasaki et al. lacks a size-reduced image compressor for compressing a plurality of size-reduced image signals after ending successive taking of pictures.

6. The applicants admitted prior art and the DCF (Design rule for Camera File system) teaches that there is a need of producing thumbnail image signals in addition to main image signals so that both the image signals are recorded in a compressed state. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the system of Nagasaki et al. to create thumbnail images and record them in addition to the main image signals in a compressed state to fill this need. The office notes that since Nagasaki et al. teaches the compressing of images in a time period when no pictures are taken, the size-reduced images would inherently be compressed after a successive taking of pictures has ended as claimed.

[claim 2]

7. In regard to claim 2, note that Nagasaki et al. further discloses a memory for temporarily holding a plurality of compressed main image signals produced by the main image compressor (Figure 1, Item 35); and a size-reduced image compressor (Figure 1, Item 32) which compresses the plurality of size-reduced image signals. Therefore, it

can be seen that Nagasaki et al. lacks a size-reduced image producer for producing the plurality of size-reduced image signals on the basis of the plurality of compressed main image signals held by the memory after ending the successive taking of pictures.

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji et al. (US 6,415,102) in view of the DCF (Design rule for Camera File system).

[claim 1]

9. In regard to claim 1, note that Fuji et al. discloses a digital camera (Figure 1) for recording, in a compression state, a plurality of main image signals and a plurality of size-reduced image signals that correspond to a plurality of successively taken subject images to a recording medium (Figures 4 and 5), comprising: a main image compressor for compressing one of the main image signals each time picture taking is made once (Figure 1, Item 26; The office notes that since A/D conversion removes a portion of the signal data, it is in effect a "compressor"). Therefore, it can be seen that Fuji et al. lacks a size-reduced image compressor for compressing the plurality of size-reduced image signals after ending successive taking of pictures.

10. The applicants admitted prior art and the DCF (Design rule for Camera File system) teaches that there is a need of producing thumbnail image signals in addition to main image signals so that both the image signals are recorded in a compressed state. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the system of Fuji et al. to create thumbnail images and

record them in addition to the main image signals in a compressed state to fill this need.

[claim 2]

11. In regard to claim 2, note that Fuji et al. discloses a digital camera further comprising a memory for temporarily holding a plurality of compressed main image signals produced by said main image compressor (Figure 1, Item 42); and a size-reduced image producer for producing the plurality of size-reduced image signals on the basis of the plurality of compressed main image signals held by the memory after ending the successive taking of pictures (Figures 4 and 5; Column 7, Lines 17-21; The office notes that the recording operation in which the thumbnail images are produced occurs after the completion of the successive photo taking operation as can be seen in Figures 4 and 5). Therefore, it can be seen that Fuji et al. lacks a size-reduced image compressor to compress the plurality of size-reduced image signals produced by the size-reduced image producer.

12. However, in order to satisfy the needs presented by the DCF, it would be necessary to include a size-reduced image compressor in order to store the size-reduced images in a compressed form. Therefore, under the combination of Fuji et al. in view of the DCF, a size-reduced image compressor would be inherent.

13. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 5,933,137) in view of Nagasaki (US 5,153,730).

[claim 1]

14. In regard to claim 1, note that Anderson discloses a digital camera (Figure 1) for recording, in a compression state, a plurality of main image signals and a plurality of size-reduced image signals (Figure 5) that correspond to a plurality of successively taken subject images to a recording medium (Figure 6, Item 354), comprising: a main image compressor for compressing one of the main image signals each time picture taking is made once (Column 8, Lines 1-14) and a size-reduced image compressor for compressing the plurality of size-reduced image signals (Figure 5; Column 6, Lines 15-18). Therefore, it can be seen that Anderson lacks a size-reduced image compressor which compresses the size-reduced images after ending successive taking of pictures.

15. Nagasaki et al. teaches that processing images stored in a buffer memory during a non-operating period when no pictures are being taken so as to produce flawless still-image signals with high accuracy (Column 6, Line 31 - Column 7, Line 2). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the camera of Anderson to perform image processing, such as the creation and compression of the size-reduced image signals after ending successive taking of pictures to produce flawless still-image signals with high accuracy.

[claim 2]

16. In regard to claim 2, note that Anderson discloses a memory for temporarily holding a plurality of compressed main image signals produced by the main image compressor (Figure 4B, Item 538; Column 8, Lines 1-14); a size-reduced image producer for producing the plurality of size-reduced image signals on the basis of the plurality of compressed main image signals held by the memory (Column 8, Lines 1-14),

wherein the size-reduced image compressor compresses the plurality of size-reduced image signals produced by the size-reduced image producer (Figure 5; Column 6, Lines 15-18). Therefore, it can be seen that Anderson lacks a size-reduced image producer which produces the size-reduced images after the ending of a successive taking of pictures.

17. However, it is noted that Nagasaki et al. teaches the processing of images during non-operating periods of the camera, such as when a picture-taking operation is not taking place. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the size-reduced images during a non-operating period as taught by Nagasaki et al. to produce flawless still-image signals with high accuracy.

[claim 3]

18. In regard to claim 3, note that Anderson discloses a size-reduced image producer which includes a decompressor to decompress the plurality of compressed main image signals held by the memory, and a thinner to perform a thinning out on a plurality of decompressed main image signals produced by the decompressor and produce the plurality of size-reduced image signals (Column 8, Lines 1-14).

[claim 4]

19. In regard to claim 4, note that Anderson discloses a size-reduced image producer to produce one of the size-reduced image signals each time picture taking is made once (Column 7, Lines 59-61; The office notes that Anderson discloses that the size-reduced images can be created either before or after the compressed images. It is

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also noted that claim 4 does not require the production of a size-reduced image prior to the next photo-taking operation in a successive photography mode, and a system such as Anderson which produces a size-reduced image for each taken picture at any time can read on the claim as written), a memory for temporarily holding the size-reduced image signals produced by the size-reduced image producer (The office notes that the created size-reduced images must inherently be temporarily stored prior to combining the main image data with the size-reduced image data and storing the combined data in the removable memory card 354), wherein the size-reduced image compressor compresses a plurality of size-reduced image signals held by the memory (Figure 5; Column 6, Lines 15-18). Therefore, it can be seen that Anderson lacks a size-reduced image compressor which compresses the size reduced images after ending the successive taking of pictures.

20. However, it is noted that Nagasaki et al. teaches the processing of images during non-operating periods of the camera, such as when a picture-taking operation is not taking place. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to compress the size-reduced images during a non-operating period as taught by Nagasaki et al. to produce flawless still-image signals with high accuracy.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J Henn whose telephone number is (703) 305-

8327. The examiner can normally be reached on M-F 7:30 AM - 5:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH
4/15/2004



NGOC-YENVU
PRIMARY EXAMINER